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Abstract of the Disclosure

A method and a pulse pressure sensor for sensing an arterial pulse pressure waveform. In one embodiment, the pulse pressure sensor includes a housing, a diaphragm, a piezoelectric device, and a self-contained amplifier. The skin-contact diaphragm is attached across a recess or opening in the housing. The piezoelectric device has a first portion mounted in a fixed relationship to the housing and a second portion displacementally coupled to the diaphragm. The solid-state amplifier has a signal input coupled to the piezoelectric device, wherein the piezoelectric device and amplifier together have a frequency response at least including a range from below approximately 0.1 hertz to above approximately 250 hertz. In one such embodiment, the housing and the skin-contact diaphragm of the sensor are stainless steel. In one such embodiment, the diaphragm has a skin-contact surface with a skin-contact dimension of between approximately 0.4 inch and 0.6 inch. In one embodiment, the sensor includes a solid-state amplifier that includes a high-inputimpedance MOSFET input stage having an input resistance high enough to provide a frequency response that extends below approximately 0.1 hertz.

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